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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/749,197 | 12/27/2000 | Manoj Ramprasad Shah | 11777.00023 | 5274 |

28480 7590 06/14/2002

BANNER & WITCOFF, LTD.
ATTORNEYS FOR GENERAL ELECTRIC
1001 G. STREET, N.W.
ELEVENTH FLOOR
WASHINGTON, DC 20001-4597

EXAMINER

CUEVAS, PEDRO J

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 06/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/749,197

Applicant(s)

SHAH ET AL.

Examiner

Pedro J. Cuevas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 13-19, 21 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-12 and 20 in Paper No. 10 is acknowledged. The traversal is on the ground(s) that the subject matter of the tree identified groups are sufficiently related that a thorough search for one group would encompass a search for the subject matter of the other groups. This is not found persuasive because a flux shunt and a flux end shunt are two different devices that can be used, each alone or combined, in a power generator. Keybars are yet another different device with a different purpose that can also be used in the construction of a power generator.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 13-19 and 21-22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to two different nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 10.

Specification

3. The spacing of the lines of the specification is such as to make reading and entry of amendments difficult. New application papers with lines double spaced on good quality paper are requested.

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

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5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Cylindrical And Magnetically Isotropic Flux Shunt For Power Generator Stator Assembly.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-12 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,258,281 to Calfo et al.

Calfo et al. clearly teaches the construction of a flux shunt (51, 91) for use in a power generator comprising:

a stator having a stator core (3), wherein the flux shunt attracts fringing magnetic flux (column 3, lines 42-44) in a power generator and wherein:

a permeability of the flux shunt is greater than a permeability of the stator core (column 3, lines 42-44);

the flux shunt comprises a magnetically isotropic (as defined by The American Heritage® Dictionary of the English Language, Third Edition copyright © 1992 by Houghton Mifflin Company) material;

the flux shunt is substantially cylindrically-shaped;

the flux shunt comprises multiple discrete rings capable of being disposed around the periphery of an inner surface of the stator; and

the flux shunt comprises a plurality of segments capable of being discretely disposed around the periphery of an inner surface of the stator.

8. With regards to claims 6-12, Calfo et al. disclose the construction of a power generator stator assembly comprising:

a substantially cylindrical stator core comprising an inner surface, an outer surface, and two ends;

a flux shunt disposed adjacent to the inner surface of the stator core at one end of the two ends of the stator core, wherein a permeability of the flux shunt is greater than a permeability of the stator core;

a flux shunt comprises a first flux shunt (91) disposed at a first end of the two ends, wherein the power generator stator assembly further comprises a second flux shunt (95) disposed adjacent to the inner surface of the stator core at a second end of the two ends of the stator core, and wherein a permeability of each of the first flux shunt and the second flux shunt is greater than a permeability of the stator core;

a flux shunt comprises an approximately cylindrically-shaped insert that is disposed adjacent to the inner surface of the proximal end;

an interior surface of the stator core includes multiple steps (58 and 59) stepping the stator core away from a rotor disposed inside of the stator core, and wherein the flux shunt further comprises:

an outer surface that mates with the multiple steps of the stator core.

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the flux shunt comprises a plurality of approximately ring-shaped inserts;

the flux shunt comprises a magnetically isotropic (as defined by The American Heritage® Dictionary of the English Language, Third Edition copyright © 1992 by Houghton Mifflin Company) material; and

the flux shunt comprises an inner surface and an outer surface, wherein the outer surface of the flux shunt is disposed adjacent to the inner surface of the stator core, and wherein the power generator stator assembly further comprises a flux shunt retainer (69) that is disposed adjacent to the inner surface of the flux shunt.

9. With regards to claims 2 and 11, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select a magnetically isotropic material for the flux shunt, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

10. With regards to claim 20, Calfo et al. disclose the construction of a power generator comprising:

an approximately cylindrically-shaped stator (1) comprising a stator core (3),

an inner surface, an outer surface, and two ends;

a flux shunt (51, 91) circumferentially disposed adjacent to the inner surface of the stator at approximately an end of the two ends of the stator;

a rotor (5) rotatably disposed inside of the stator wherein a rotation of the rotor causes an induction of a magnetic flux that is greater than the magnetic flux that would be induced in the absence of the flux shunt.

Conclusion


11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R. Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas
June 12, 2002


NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800